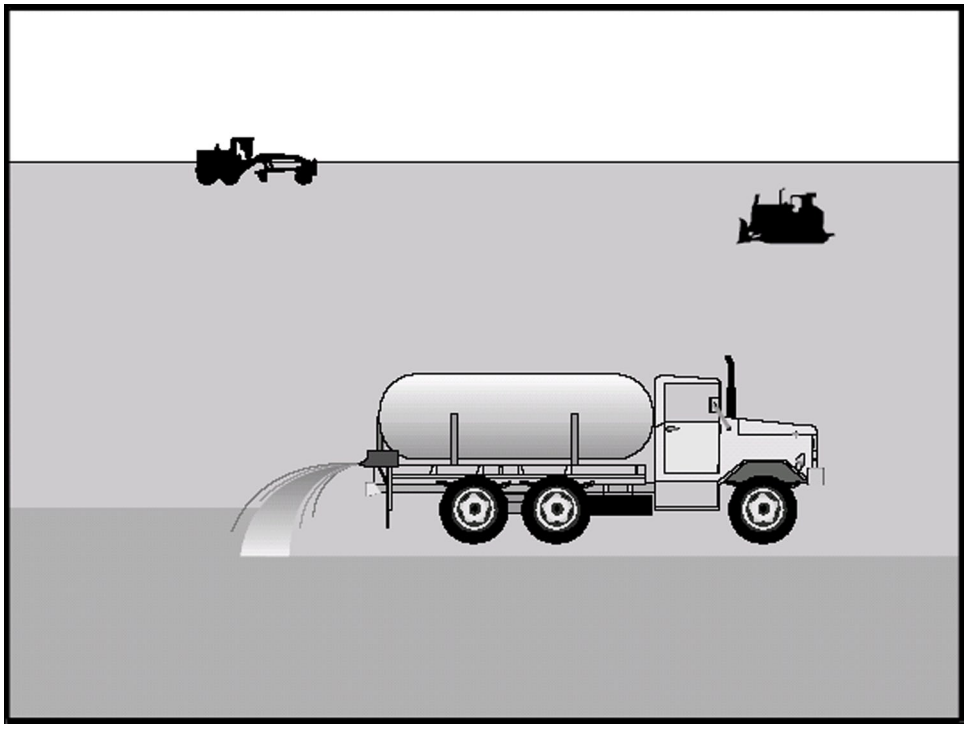
5.4 WIND EROSION CONTROL BEST MANAGEMENT PRACTICES

Wind erosion control consists of applying water or other dust palliatives as necessary to prevent or alleviate dust nuisance. Temporary Soil Stabilization BMPs described earlier in this chapter may also be appropriate.

Wind Erosion Control



5.4.1 Wind Erosion Control

Definition

The application of water or chemical dust palliatives as necessary to prevent or alleviate dust nuisance.

Purpose

- To prevent the movement of soil particles by the wind causing air pollution and eventual sediment release into the waters of the U.S.

Appropriate Applications

- Implement on all soil surfaces exposed to wind including stockpiles.

Limitations

- Effectiveness depends on soil, temperature, humidity, and wind velocity.
- May cause surface to become slippery.

Standards and Specifications

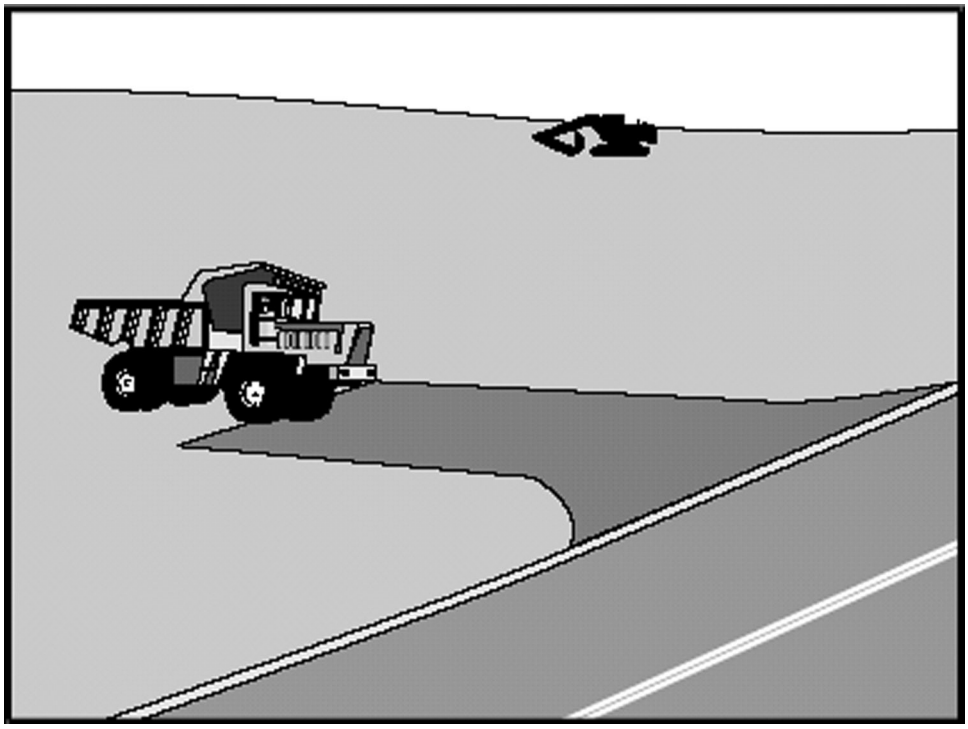
- Follow federal, state, and local air quality regulations and guidelines.
- Contact ADOT Transportation Planning Division, Air Quality Policy Section for the most up to date information about air quality control on construction projects.

- Use dust control treatments that conserve water whenever feasible.
- Materials applied as temporary soil stabilizers and soil binders, such as erosion control blankets or mulches, will also provide wind erosion benefits.
- Follow ADOT standard Specifications for Road and Bridge Construction.

5.5 TRACKING CONTROL BEST MANAGEMENT PRACTICES

Tracking control consists of preventing or reducing vehicle tracking from entering a storm drain or watercourse and includes the following:

Stabilized Construction Entrance/Exit



5.5.1 Stabilized Construction Entrance/Exit

Definition

A temporary stabilized vehicular entrance, located where traffic will enter and exit a construction site.

Purpose

- To reduce or eliminate the tracking of sediment onto public right-of-way, streets, sidewalk, or parking areas where it can potentially be washed into local storm drains or become airborne pollution.

Appropriate Applications

- Whenever traffic will be leaving a construction site and moving directly onto a public road or paved area.
- Entrances should be constructed on level ground.
- Site specific, conditions will dictate need.

Limitations

- Entrances must be planned and reviewed as part of the project traffic control plan.

- Increases construction cost
- Not very effective at removing sediment from equipment leaving the construction site.

Planning Considerations

- Entrances are more effective if designed in conjunction with tire wash area.
- Water source for tire wash must be provided.

Design and Sizing Criteria

- Entrances must be properly graded to prevent runoff from leaving the construction site.
- Entrances should drain to a sediment trap or sediment basin
- Design stabilized entrance/exit to support heaviest vehicles and equipment that will use it.
- Place aggregate over geotextile fabric to prevent sediment from the base material from migrating into the aggregate.
- Aggregate should be angular, fractured rock.
- Aggregate should be 12 inches deep, 3 to 6 inches in size and 50 feet long.

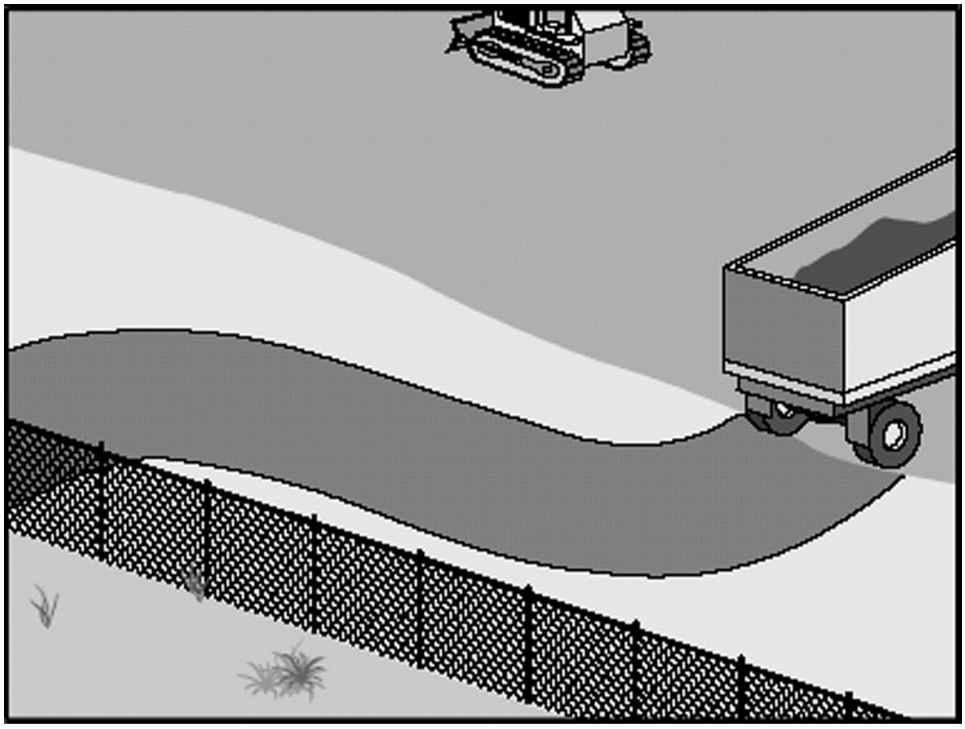
Inspections

- Follow inspection schedule required in CGP Part IV.H.
- Inspect for amount of sediment being tracked unto the road and verify that the gravel is clean and not filled with sediment.

Maintenance

- Gravel mat shall be replaced by top dressing with additional stone when surface voids are no longer visible.
- All sediment deposited on paved roadways must be removed within 24 hours (Refer to Street Sweeping and Vacuuming BMP).
- Sediment shall be removed from sediment traps as specified in maintenance standards for the specific BMP used.
- The gravel and filter fabric will be removed upon completion of the construction and disturbed soil areas resulting from removal shall be permanently stabilized.

Stabilized Construction Roadway



5.5.2 Stabilized Construction Roadway

Definition

A stabilized construction roadway is a temporary access road connecting existing public roads to a remote construction area.

Purpose

- It is designed for the control of dust and erosion created by vehicular tracking.

Appropriate Applications

Construction roadways and short-term detour roads:

- Where mud tracking is a problem during wet weather
- Where dust is a problem during dry weather
- Adjacent to water bodies
- Where poor soils are encountered

This BMP may be implemented on a project-by-project basis with other BMPs when determined necessary and feasible by the Engineer.

Limitations

- Materials will likely need to be removed prior to final project grading and stabilization.
- Site conditions will dictate design and need.
- May not be applicable to very short duration projects.
- Limit speed of vehicles to control dust.

Standards and Specifications

- Properly grade roadway to prevent runoff from leaving the construction site.
- Design stabilized access to support heaviest vehicles and equipment that will use it.
- Stabilize roadway using aggregate, asphalt concrete, or concrete based on longevity, required performance, and site conditions. The use of cold mix asphalt or asphalt concrete (AC) millings for stabilized construction roadway is not allowed.
- Coordinate materials with those used for stabilized construction entrance/exit points.
- If aggregate is selected, place crushed aggregate over geotextile fabric to at least 12 inches depth, or place aggregate to a depth recommended by a geotechnical engineer. A crushed aggregate greater than 3 inches, but smaller than 6 inches shall be used.

Maintenance and Inspection

- Inspect routinely for damage and repair as needed, or as directed by the Engineer.
- Keep all temporary roadway ditches clear.
- When no longer required, remove stabilized construction roadway and re-grade and repair slopes.